Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1–11. (Canceled)

12. (Currently Amended) A composition comprising:

at least one antibody selected from the group consisting of:

anti-MSRV/HERV-W Env-SU antibodies,

~~anti-TLR4 antibodies capable of binding specifically to the soluble fraction of the MSRV/HERV-W Env protein,~~

anti-toll-like receptor 4 (anti-TLR4) antibodies capable of binding specifically to the TLR4 receptor for the soluble fraction of the MSRV/HERV-W Env protein, and

mixtures thereof, and

a pharmaceutically acceptable carrier;

wherein said soluble fraction of the MSRV/HERV-W Env protein comprises the sequence set forth in SEQ ID NO:3 and said at least one antibody inhibits an interaction between said soluble fraction of the MSRV/HERV-W Env protein and said TLR4 receptor causing the pro-inflammatory cascade induced by the activation of MSRV/HERV-W~~; and~~

~~a pharmaceutically acceptable carrier~~.

13. (Previously Presented) The composition of claim 12, further comprising a pharmaceutically acceptable vector.

14. (Withdrawn-Currently Amended) The composition of claim 12, wherein the at least one antibody comprises at least one anti-MSRV/HERV-W Env-SU antibody and at least one ~~anti-TLR4 antibody capable of binding specifically to the soluble fraction of the~~

~~MSRV/HERV-W Env protein or~~ anti-TLR4 antibody capable of binding specifically to the TLR4 receptor for the soluble fraction of the MSRV/HERV-W Env protein.

15. (Withdrawn) The composition of claim 12, wherein the anti-MSRV/HERV-W Env-SU antibody is selected from the group consisting of: 3B2H4, 13H5A5, and 3H10F10, and wherein the anti-TLR4 antibody is HTA125.

16. (Previously Presented) A method of treating a pathology associated with MSRV/HERV-W, comprising administering to an individual having said pathology the composition of claim 12, wherein the at least one antibody is present in an amount sufficient to inhibit the pro-inflammatory cascade induced by the activation of MSRV/HERV-W.

17. (Previously Presented) The method of claim 16, wherein the pathology associated with MSRV/HERV-W is multiple sclerosis or schizophrenia.

18. (Currently Amended) A method of inhibiting an interaction between a soluble fraction of MSRV/HERV-W Env protein and a TLR4 (toll-like receptor 4) receptor for said soluble fraction, said interaction causing the pro-inflammatory cascade induced by the activation of MSRV/HERV-W, the method comprising:

administering to an individual in need thereof a composition comprising at least one antibody selected from the group consisting of: anti-MSRV/HERV-W Env-SU antibodies, anti-TLR4 antibodies capable of binding specifically to ~~the~~ said soluble fraction of the MSRV/HERV-W Env protein, anti-TLR4 antibodies capable of binding specifically to ~~the~~ said TLR4 receptor ~~for the soluble fraction of the MSRV/HERV-W Env protein~~, and mixtures thereof, and a pharmaceutical carrier;

wherein said soluble fraction of the MSRV/HERV-W Env protein comprises the sequence set forth in SEQ ID NO:1.

19. (Withdrawn) The method of claim 18, wherein the at least one antibody comprises at least one anti-MSRV/HERV-W Env-SU antibody and at least one anti-TLR4

antibody capable of binding specifically to the soluble fraction of the MSRV/HERV-W Env protein or anti-TLR4 antibody capable of binding specifically to the TLR4 receptor for the soluble fraction of the MSRV/HERV-W Env protein.

20. (Withdrawn) The method of claim 18, wherein the anti-MSRV/HERV-W Env-SU antibody is selected from the group consisting of: 3B2H4, 13H5A5, and 3H10F10, and wherein the anti-TLR4 antibody is HTA125.

21. (Withdrawn) A method of determining the state of reactivity of blood mononuclear cells from individuals suffering from multiple sclerosis or schizophrenia, comprising assaying cellular cytokines selected from the group consisting of: IL-6, IL12-p40, and TNF-α, and assessing cellular expression of MSRV/HERV-W to determine the state of reactivity.

22. (Currently Amended) An antibody ~~selected from the group consisting of: 3B2H4, 13H5A5, and 3H10F10~~ capable of specifically binding to a region selected from the group consisting of:

amino acid residues 122–131 of SEQ ID NO:3;

amino acid residues 312–316 of SEQ ID NO:3; and

amino acid residues 181–186 of SEQ ID NO:3.

23. (New) The antibody according to claim 22, wherein the antibody is produced by culture of hybridomas from mice cells after immunization with a soluble fraction of MSRV/HERV-W Env protein, wherein said soluble fraction comprises the sequence set forth in SEQ ID NOs: 1 or 3.